



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1202; Directorate Identifier 2012-NE-38-AD; Amendment 39-17309; AD 2012-26-14]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Rolls-Royce Deutschland Ltd & Co KG BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines. This AD requires a one-time removal from service of the high-pressure (HP) compressor stages 1 to 6 rotor disc assembly before exceeding certain thresholds. This AD was prompted by a report of silver chloride-induced stress corrosion cracking of the HP compressor stages 1 to 6 rotor disc assembly, identified during overhaul. We are issuing this AD to prevent failure of the HP compressor stages 1 to 6 rotor disc assembly, which could result in uncontained failure of the engine and damage to the airplane.

DATES: This AD becomes effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: 202-493-2251.

For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; telephone: 49 0 33-7086-1883; fax: 49 0 33-7086-3276. You may view copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; e-mail: frederick.zink@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2012-0230, dated October 30, 2012 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Silver chloride-induced stress corrosion cracking was identified during overhaul of a BR700-715 engine, on the High Pressure Compressor (HPC) stages 1 to 6 rotor disc assembly. Subsequent evaluation concluded that the affected part life limitation values declared in the engine Time Limits Manual cannot be supported for high cyclic life HPC discs.

This condition, if not corrected, could lead to uncontained HPC disc failure, possibly resulting in damage to, and/or reduced control of the aeroplane.

You may obtain further information by examining the MCAI in the AD docket.

FAA’s Determination and Requirements of this AD

This product has been approved by the aviation authority of Germany, and is approved for operation in the United States. Pursuant to our bilateral agreement with Germany, they have notified us of the unsafe condition described in the MCAI referenced above. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other

products of the same type design. This AD requires a one-time removal from service of the HP compressor stages 1 to 6 rotor disc assembly before exceeding certain thresholds.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because of the short compliance times for HP compressor stages 1 to 6 rotor disc assemblies that are at or over the removal thresholds. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2012-1202; Directorate Identifier 2012-NE-38-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read

the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

2012-26-14 **Rolls-Royce Deutschland Ltd & Co KG (Formerly Rolls-Royce Deutschland GmbH, formerly BMW Rolls-Royce GmbH):** Amendment 39-17309; Docket No. FAA-2012-1202; Directorate Identifier 2012-NE-38-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce Deutschland Ltd & Co KG BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines.

(d) Reason

This AD was prompted by a report of silver chloride-induced stress corrosion cracking of the high-pressure (HP) compressor stages 1 to 6 rotor disc assembly, identified during overhaul. We are issuing this AD to prevent failure of the HP compressor stages 1 to 6 rotor disc assembly, which could result in uncontained failure of the engine and damage to the airplane.

(e) Actions and Compliance

Unless already done, do the following actions.

(1) BR700-715A1-30 Turbofan Engines Operated Under the Hawaiian Flight

Mission Only

For BR700-715A1-30 turbofan engines operated under the Hawaiian Flight Mission only, do the following:

(1) If the HP compressor stages 1 to 6 rotor disc assembly has accumulated 15,700 flight cycles since new or fewer on the effective date of this AD, remove the rotor disc assembly from service before exceeding 16,000 flight cycles since new (CSN).

(2) If the HP compressor stages 1 to 6 rotor disc assembly has accumulated more than 15,700 flight CSN on the effective date of this AD, remove the rotor disc assembly from service within 300 flight cycles.

(2) BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 Turbofan Engines (All Flight Missions Except the Hawaiian Flight Mission)

For BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines (all flight missions except the Hawaiian Flight Mission), do the following:

(1) If the HP compressor stages 1 to 6 rotor disc assembly has accumulated 13,700 flight CSN or fewer on the effective date of this AD, remove the rotor disc assembly from service before exceeding 14,000 flight CSN.

(2) If the HP compressor stages 1 to 6 rotor disc assembly has accumulated more than 13,700 flight cycles since new on the effective date of this AD, remove the rotor disc assembly from service within 300 flight cycles.

(f) Terminating Action

Performing the one-time removal from service of the stages 1 to 6 rotor disc assembly, as specified in this AD, is terminating action to this AD.

(g) Definition

For the purpose of this AD, flight cycles is the total flight CSN on the HP compressor stages 1 to 6 rotor disc assembly, without any pro-rated calculations applied for different flight missions. Guidance on calculating total flight cycles can be found in Rolls-Royce Deutschland Ltd & Co KG Notice to Operators BR715 engines NTO: No. 184, dated October 25, 2012.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; e-mail: frederick.zink@faa.gov.

(2) Refer to European Aviation Safety Agency AD 2012-0230, dated October 30, 2012, and Rolls-Royce Deutschland Ltd & Co KG Alert Service Bulletin No. SB-BR700-72-A900401, dated October 25, 2012, for related information.

(3) For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; telephone: 49 0 33-7086-1883; fax: 49 0 33-7086-3276. You may view copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on December 27, 2012.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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